

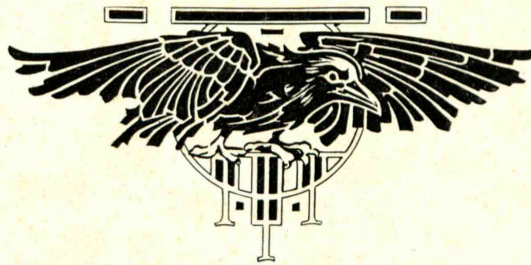
BLACK-CROW

MOTOR CARS



1910

1910 Black Crow 1910



BLACK-CROW MOTOR CARS

ROADSTERS, SURREYS
PONY TONNEAUS
TOURING CARS
TOWN CARS

1910

BLACK MANUFACTURING COMPANY
215, 217, 219 WEST OHIO STREET
CHICAGO, ILLINOIS



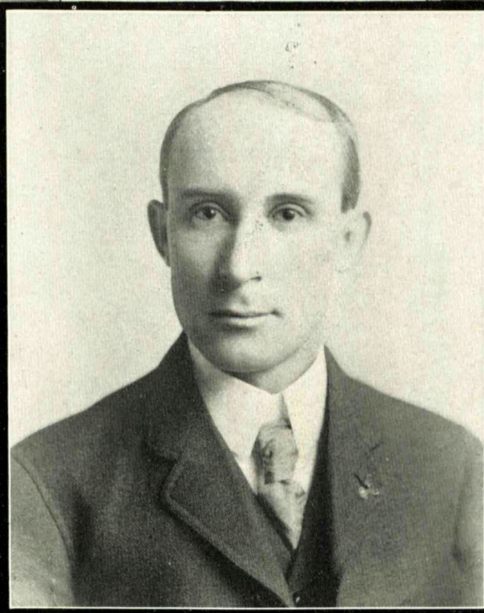
Our Sales Department



W.H. CONKLIN
ASST SALES MGR.



M.E. HOSHAW
ASST SALES DEPT.
AND TRAFFIC MGR.



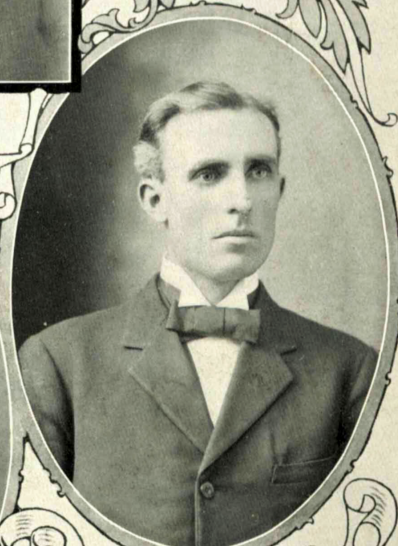
C.C. DARNALL
GENERAL SALES MANAGER



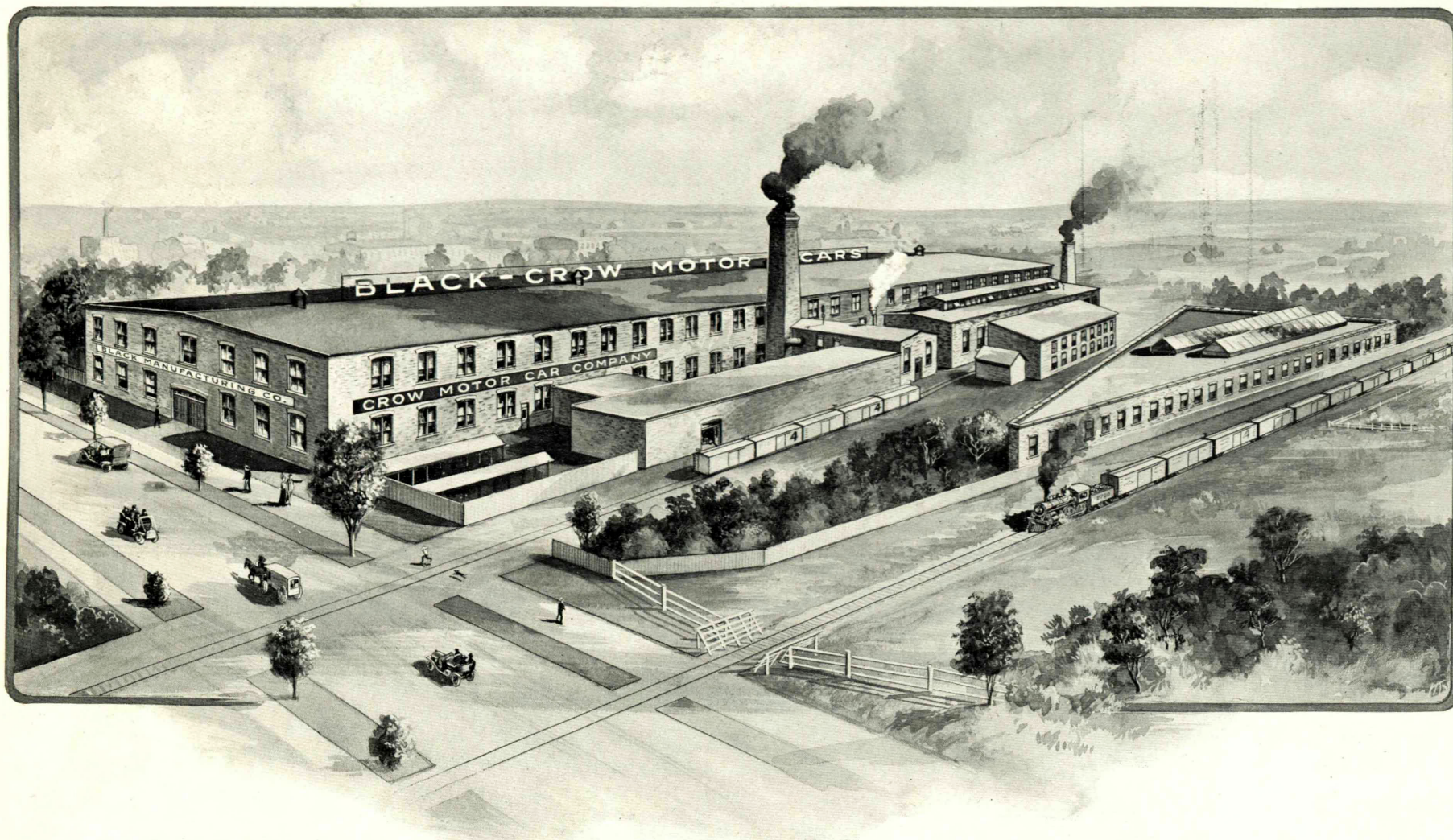
O.F. ROST
MGR. NEW YORK OFFICE



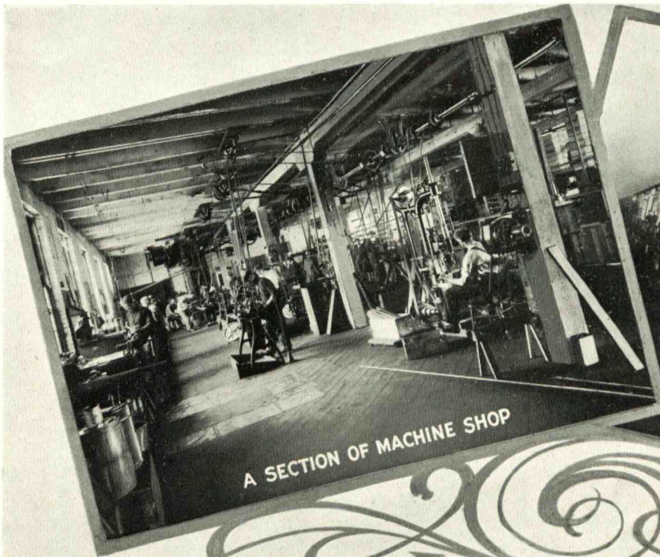
J.W. COEY
ASST. SALES DEPT.



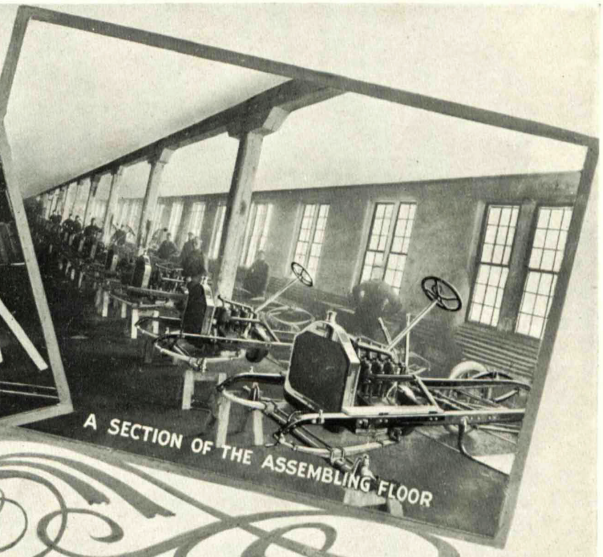
E.C. TROTT
ASST SALES DEPT.



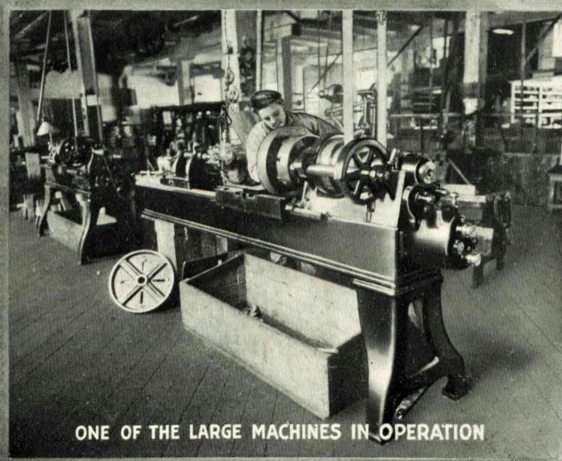
BIRD'S-EYE VIEW OF FACTORY
ELKHART, INDIANA



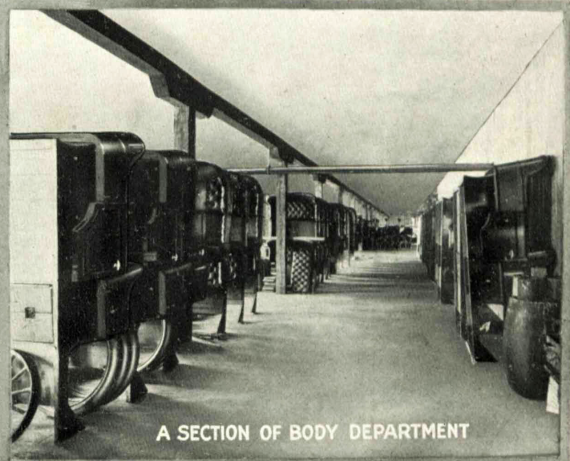
A SECTION OF MACHINE SHOP



A SECTION OF THE ASSEMBLING FLOOR

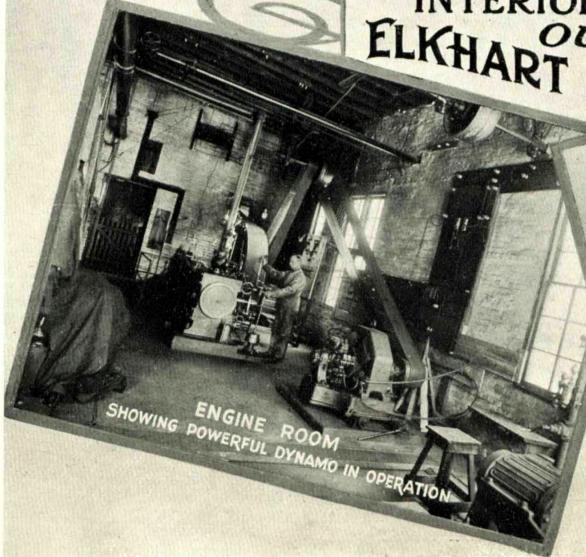


ONE OF THE LARGE MACHINES IN OPERATION

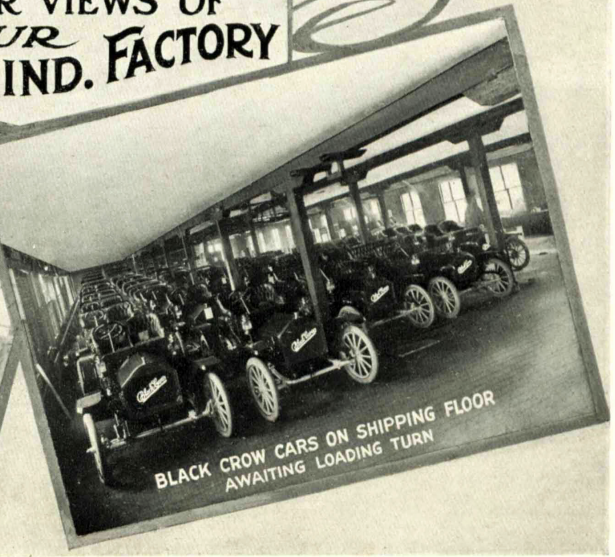


A SECTION OF BODY DEPARTMENT

INTERIOR VIEWS OF OUR ELKHART IND. FACTORY



ENGINE ROOM
SHOWING POWERFUL DYNAMO IN OPERATION



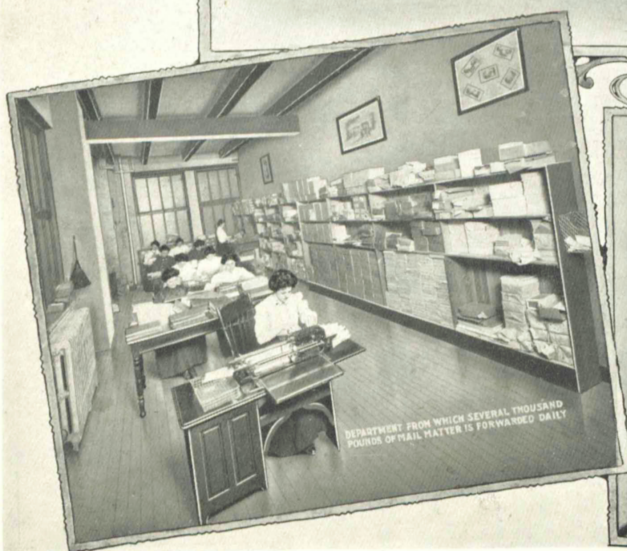
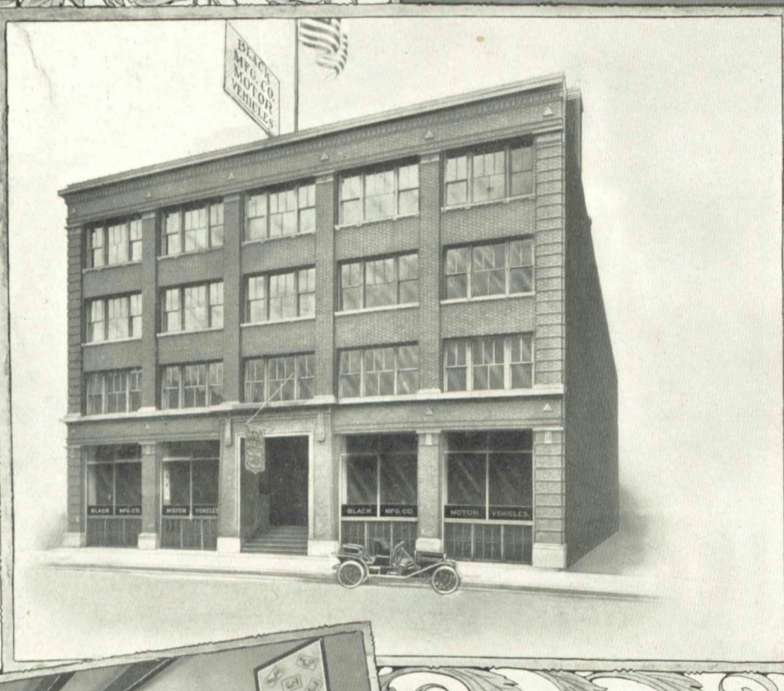
BLACK CROW CARS ON SHIPPING FLOOR
AWAITING LOADING TURN



GENERAL CORRESPONDENCE DEPARTMENT



VIEW OF CHICAGO REPOSITORY



DEPARTMENT FROM WHICH SEVERAL THOUSAND POUNDS OF MAIL MATTER IS FORWARDED DAILY



ONE OF THE SIX LARGE MAIL DELIVERIES

GENERAL OFFICES AND REPOSITORY

215, 217, 219 WEST OHIO STREET

CHICAGO



INTRODUCTORY

N presenting this our 1910 catalog we desire to extend our sincere thanks to the thousands of customers who have favored us with their patronage in the past, and to illustrate and describe our line of BLACK-CROW MOTOR CARS in such a manner as to make it possible for anyone to become familiar with the general appearance, mechanism and construction of each and every model, and, by studying its pages, formulate a correct idea of the most complete line of popular priced motor cars manufactured by any concern in this country at the present time.

The wonderful development of the motor car industry during the past few years has made it absolutely necessary for the manufacturer to give special heed and particular attention to the ever-increasing demands of the user for a perfect working and scientifically constructed car to give the lasting service which any buyer has reason to expect and contemplate in placing his order for a motor-propelled vehicle.

The BLACK-CROW LINE for 1910 is a line of high grade cars at popular prices to meet the demands of all buyers. A careful perusal of the specifications will convince all of those who have kept pace with the rapid strides that American automobile manufacturers have made toward perfection, that all of the most up-to-date, desirable features and standard equipment in motor car construction are embodied in the different BLACK-CROW models.

We have endeavored to make our explanations and illustrations so plain that those who are interested in a motor-propelled vehicle will not hesitate to send us their order by mail direct, relying upon our responsibility as a guarantee that the order will be taken care of properly, and that the goods shipped will be just as represented in every particular.

If we have not made perfectly plain all of the important features of our construction, and any further information is desired, we respectfully solicit inquiry for the desired information, and such requests will have immediate attention. We want all prospective buyers to be fully informed in regard to our goods, believing that the closest investigation will be to our mutual advantage.

BLACK MANUFACTURING COMPANY.

OUR MOTTO

“He will achieve the greatest of success
Who giveth to the world in honest trade
Full dollar's worth for every dollar paid.”

Black-Crow Cars and Their Construction

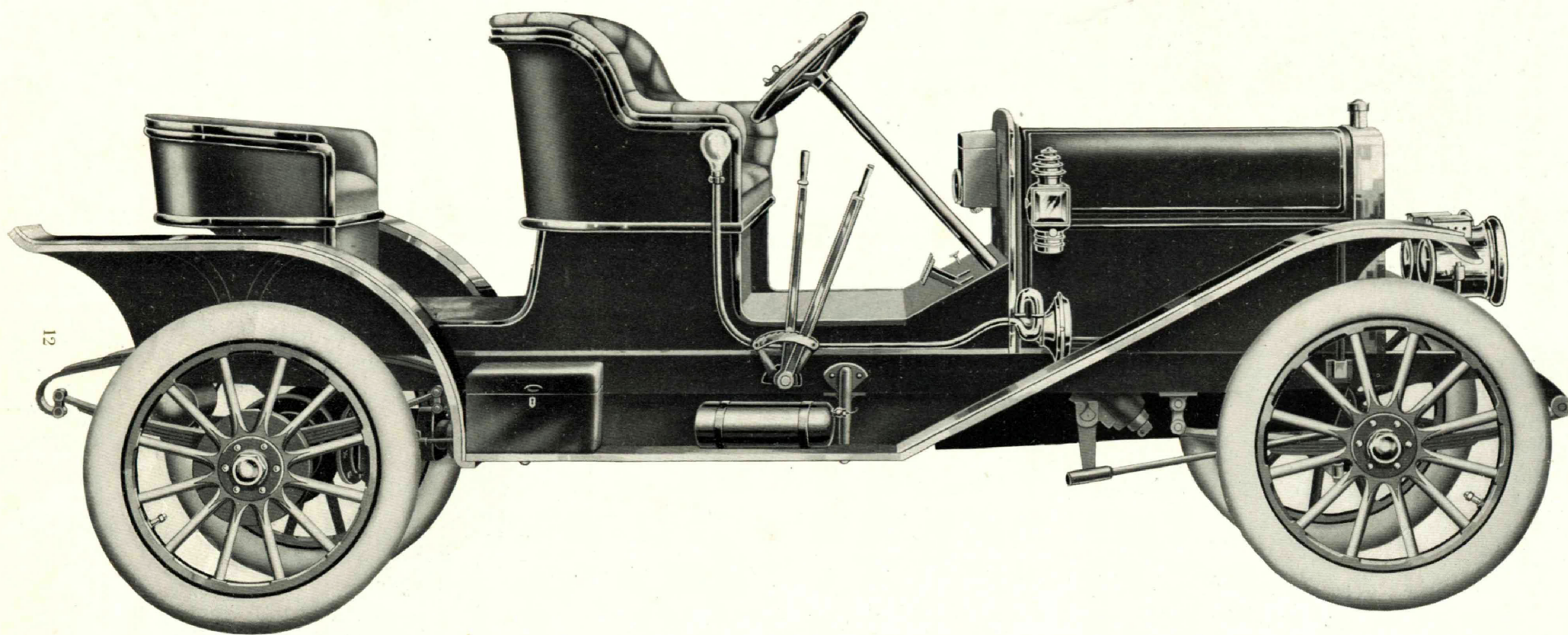
To produce a perfectly practical and serviceable motor-propelled vehicle, and manufacture it in a manner which guarantees to every user that it will give him the best of service, has been no easy task, and difficulties have arisen at different times which seemed unsurmountable; but close observation, scientific knowledge and careful attention to every little detail have made it possible for us to overcome the obstacles and give the world a car that is all that we claim for it and one that will withstand the closest scrutiny and the criticisms of the most exacting buyer.

Black-Crow Policy It has been our endeavor to produce cars of the highest grade, to be used anywhere, by anybody, at any time, and it has been our policy each year to introduce into our product only such improvements and refinements as a broad and thorough study, consistent with modernized application of improved design will permit. We have concentrated the attention of a trained staff of mechanical experts to the selection of the very best materials and the securing of the best workmanship obtainable, with the fixed purpose of placing in the hands of every owner of one of our cars a well designed and thoroughly tested car, to render the lasting service that every purchaser has a right to expect.

Black-Crow Design Our designers have most carefully considered the necessity of accessibility and simplicity of arrangement, which permits of reaching immediately the vital parts of any detail in the construction. An easy opportunity of inspecting each part eliminates much of the confusion with which a beginner undertakes the operation of any new car, and it is a protection against undue wear through negligence.

In designing the BLACK-CROW LINE for 1910 we have kept in mind every necessary and essential requisite, and our product itself will bear out the statement that the BLACK-CROW is a noiseless car, running as silent as is possible to make any car run. A perfect working, reliable clutch and a dependable brake equipment make the control and handling of the car a pleasure, and the high efficiency of the motor guarantees a surplus of power, all of which, combined with the long wheel base feature and the neat, stylish and comfortable body designs, make up what we contend is the most complete and up-to-date line of motor cars offered to buyers for the season of 1910.

Black-Crow Test Reliability is a characteristic of our entire line of Motor Vehicles, and is an assured and recognized quality. Our system of inspection and tests are features of particular interest. Every ounce of metal entering into the construction of these cars is inspected subsequent to each operation and is given final inspection after being finished, before it is put in stock. The motor, after assembling, is put through exhaustive tests and is run twenty hours in a room with high temperature, in order to determine the actual horsepower and enduring qualities. After cars are assembled they are given long and severe road tests by a corps of experienced drivers. When this test is completed, the cars are run onto a special testing stand on which the rear wheels rest on friction pulleys. These pulleys are connected with power, by which means the effective horsepower is accurately determined, and, again, all chance of mistake due to individual opinion or personal error is eliminated by standardized recording instruments. After these tests have been completed, and the mechanical parts of the car pronounced correct by competent inspectors, the cars are painted and fully equipped, then made ready for shipment.



BLACK-CROW ROADSTER

Model C Price \$1000.00

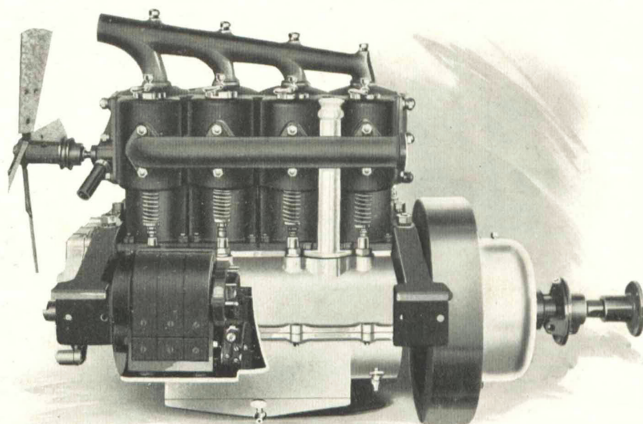
Black-Crow Cars and Their Construction—Continued

Black-Crow Motors The vital part of any motor vehicle is the source of its motive power, the engine. We have therefore exerted our greatest energies and utilized to the best advantage the ability of our skilled mechanics, sparing neither time nor money in our effort to perfect an engine that would have the high efficiency necessary to produce the best results and give the most satisfactory service under all conditions.

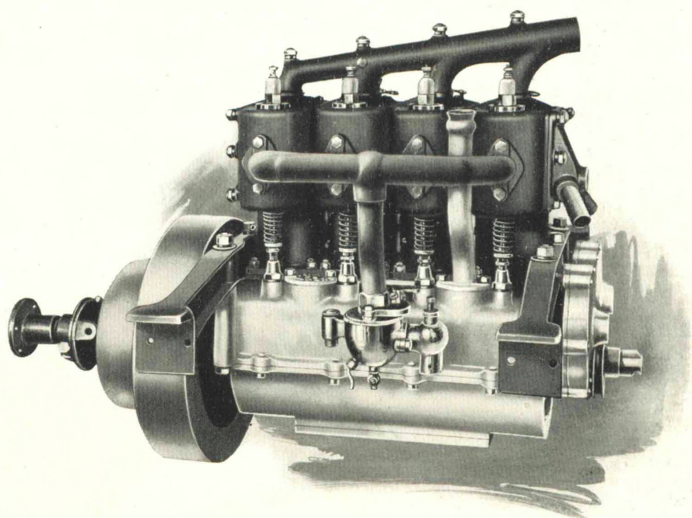
A splendid motor, coupled with correct design and accuracy of every individual piece, produces a harmonious car whose smoothness, noiselessness, freedom from vibration and perfect balance in action are not excelled by any automobile, regardless of its price or the number of its cylinders.

The motor in the Models C, D, E and F is a four-cylinder, vertical, water-cooled motor with $3\frac{1}{8}$ -inch bore and $4\frac{1}{2}$ -inch stroke, developing fully 25-30 H. P. The cylinders are of the "T-head" type, cast separately with water jacket and valve chambers integral, and are assembled in such a manner as to give the effect of an en bloc type motor. This makes possible, compactness, spacious water jackets and short water pipes, which are the main features of the en bloc motor, but at the same time provides for the replacement of cylinders separately if necessary. The casting of the cylinders separately makes perfect water jackets a certainty, and the grinding and machine work can be accomplished to better advantage and with more accurate results. The cylinders are held securely together by six stud bolts extending clear through from the front cylinder to the rear cylinder, and where the water jackets meet between the cylinders there are ground joints and cement. The castings for the cylinders, exhaust mani-

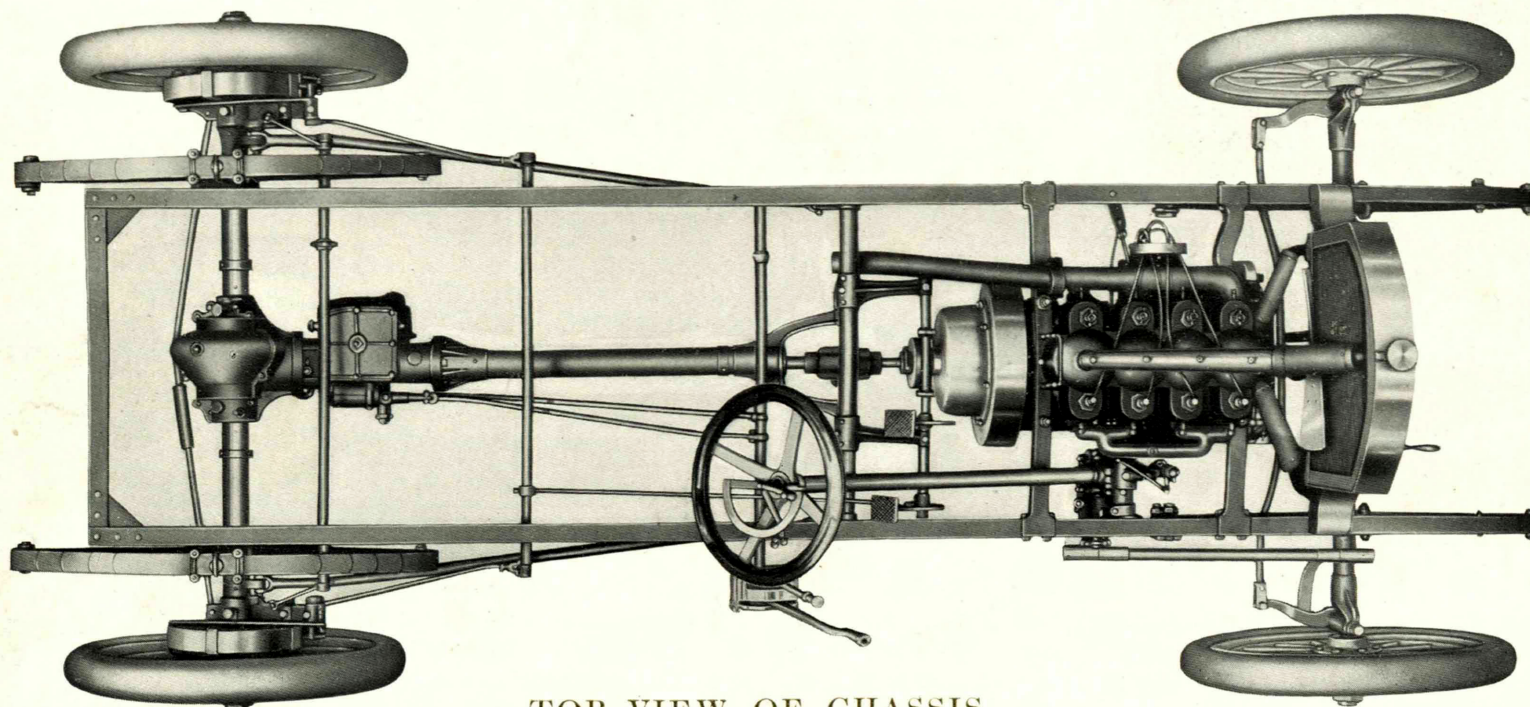
fold, pistons and piston ring blanks are made of a special semi-steel particularly adapted for the construction of such parts. The pistons are accurately ground and fitted with three rings. The cylinder, piston and rings are lapped together by a special process which gives a highly finished surface and insures a smooth working fit. The crank shaft is a solid one-piece drop forging, hardened and ground accurately to size, and has five extra large bearings made of special white bronze metal.



Left Side View of Motor in Models C, D, E and F
Showing Clutch Housing Attached



View of Right Side of Motor in Models C, D, E and F



TOP VIEW OF CHASSIS

Models C, D, E, F

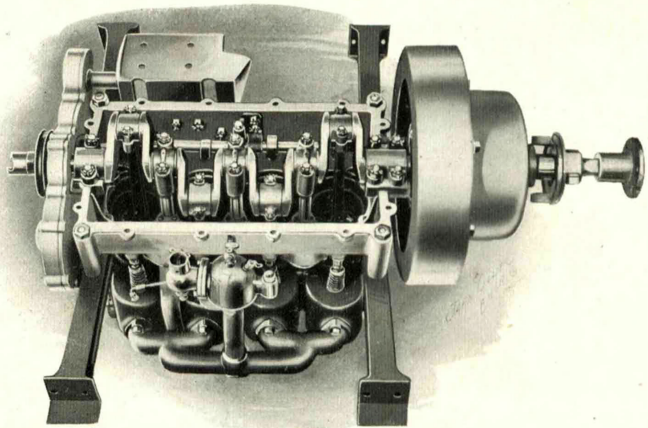
Black-Crow Cars and Their Construction—Continued

The connecting rods are drop forged. The crank pins are bushed with special white bronze and the piston pins with hard bearing bronze. The inlet and exhaust valves are mechanically operated and interchangeable and are placed on opposite sides of the cylinders. The valves are of liberal size in accordance with scientific principles and are adjusted by means of threads, washer and lock nut on the valve stems. Special attention is given to grinding the valves so that they seat perfectly.

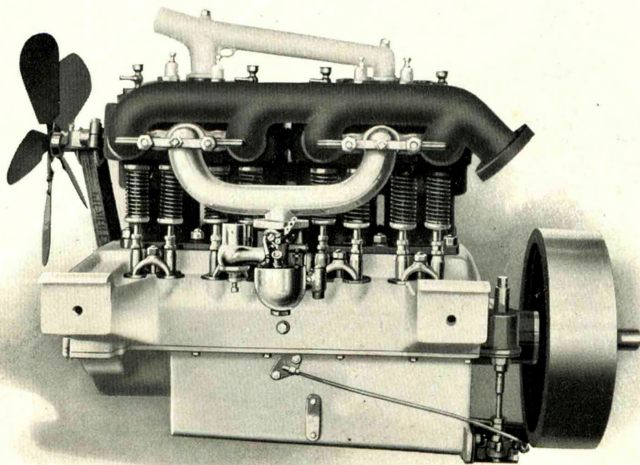
The cam shafts are enclosed within the motor crank case and are fully protected from dust and ample lubrication is a certainty. The cam shaft drive gears as well as those of the magneto are contained in separate but integrally cast oil-tight extensions of the crank case. The crank case is of a special aluminum alloy cast in three horizontal sections. The uppermost section forms the engine base and is supported from the main frame by two special drop forged cross-members. The crank shaft bearings are held between the uppermost and middle sections, while the bottom section is simply an oil well in which is located the oil pump. The middle portion of crank case is divided into four compartments by transverse partitions.

The motor in the Models L and M is a four-cylinder, vertical, water-cooled motor with $4\frac{1}{4}$ -inch bore and $4\frac{3}{4}$ -inch stroke, developing 35-40 H. P. The cylinders are of the "L" type with intake and exhaust valves all on the same side. The water jackets are spacious and are cast integral with the cylinders and valve chambers. The castings for the cylinders, exhaust manifold, piston and piston ring blanks are made of special semi-steel particularly adapted for the construction of such parts. The pistons are

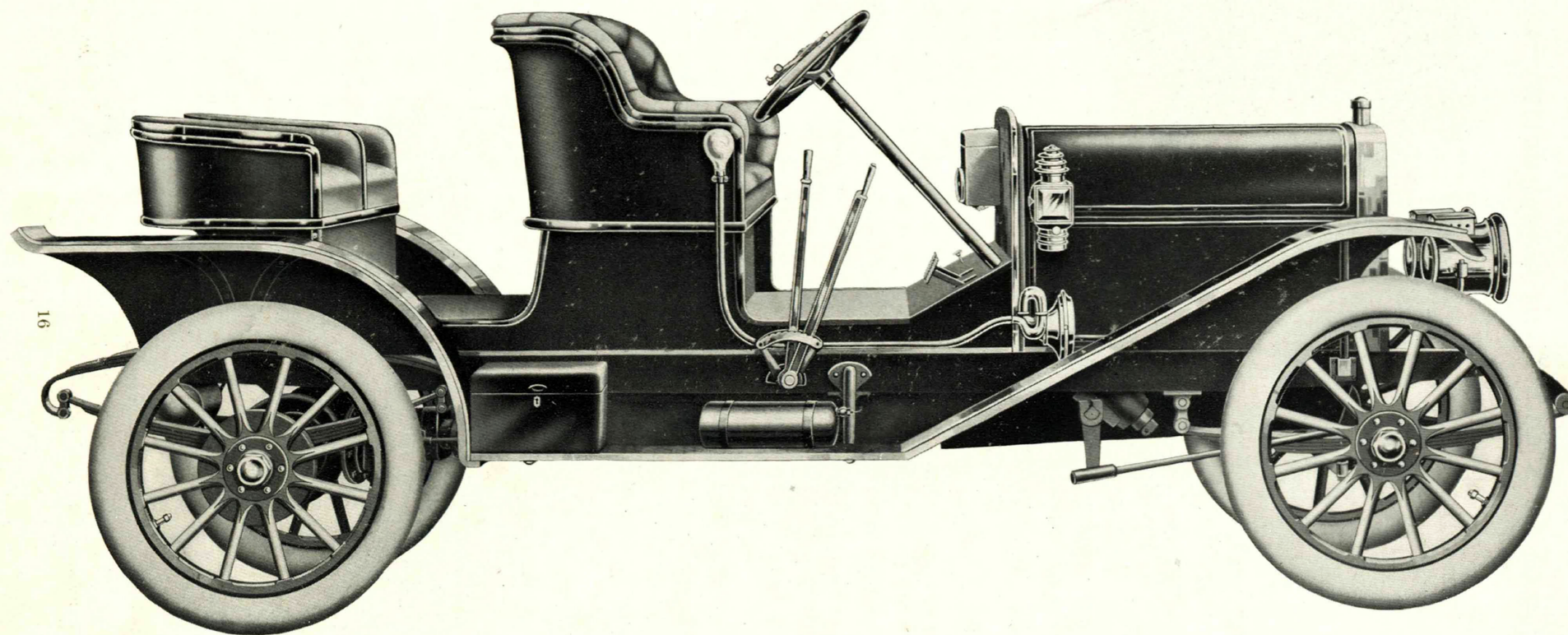
accurately ground and fitted with three rings. The cylinder, piston and rings are lapped together by a special process which gives a highly finished surface and insures a smooth working fit. The crank shaft is a solid one-piece drop forging, hardened and ground accurately to size. There are three large bearings on the crank shaft, the two main bearings being each six inches long. The bearings are made of special white bronze metal and accurate to such a degree as to be interchangeable. The connecting rods are drop forged.



Underview of Motor in Models C, D, E and F
Showing Five-Bearing Crank Shaft



Left Side View of Motor in Models L and M



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BLACK-CROW ROADSTER

(WITH DOUBLE RUMBLE SEAT)

Model D Price \$1050.00

Black-Crow Cars and Their Construction—Continued

The crank pins are bushed with special white bronze and the piston pins with hard bearing bronze. The inlet and exhaust valves are mechanically operated and interchangeable. The valves are of liberal size in accordance with scientific principles, and are adjusted by means of threads, washer and lock nut on the valve stems. The cam shafts are enclosed within the motor crank case, fully protected from dust, and ample lubrication is a certainty.

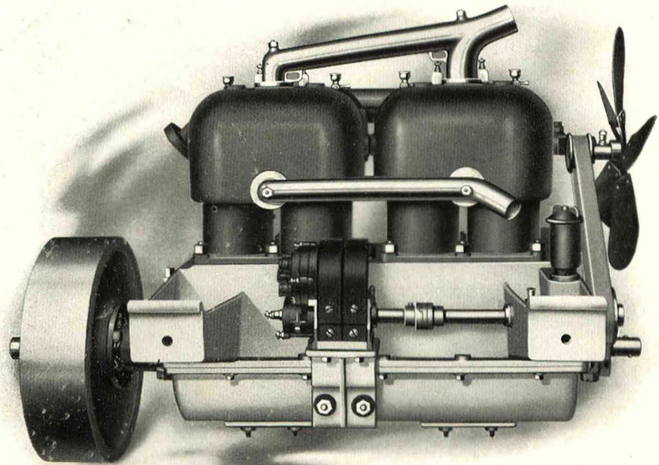
The cam shaft drive gears, as well as those of the magneto, are contained in separate but integrally-cast oil-tight extensions of the crank case. Both the intake and exhaust manifolds are very large and free from any sharp turns or elbows, so that the movement of the gases is not retarded in any way. The crank case is of special aluminum alloy, cast in three horizontal sections. The uppermost section forms the engine base and is supported from the main frame by two special drop forged cross-members. The crank shaft bearings are held between the uppermost and middle sections, while the bottom section is simply an oil well. The middle portion of the crank case is divided into four compartments by transverse partitions.

Black-Crow Cooling System

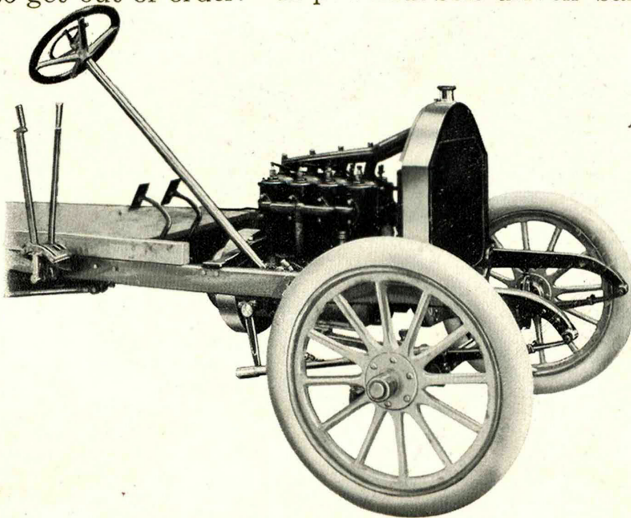
The thermo-syphon water circulating system of cooling is used in all models of the BLACK-CROW LINE. The circulation of the water is free and rapid because of the extra large radiator, spacious water jackets and short water pipes. All up-to-date and progressive automobile manufacturers are striving to eliminate unnecessary troubles by simplifying the construction of their cars. In connection with the thermo-syphon cooling system there is no water pump to get out of order. A powerful belt driven ball-bearing fan, supported by an extension

from the front cylinder, draws air through the radiator and cools the water as it circulates. The water remains at a constant temperature at all times.

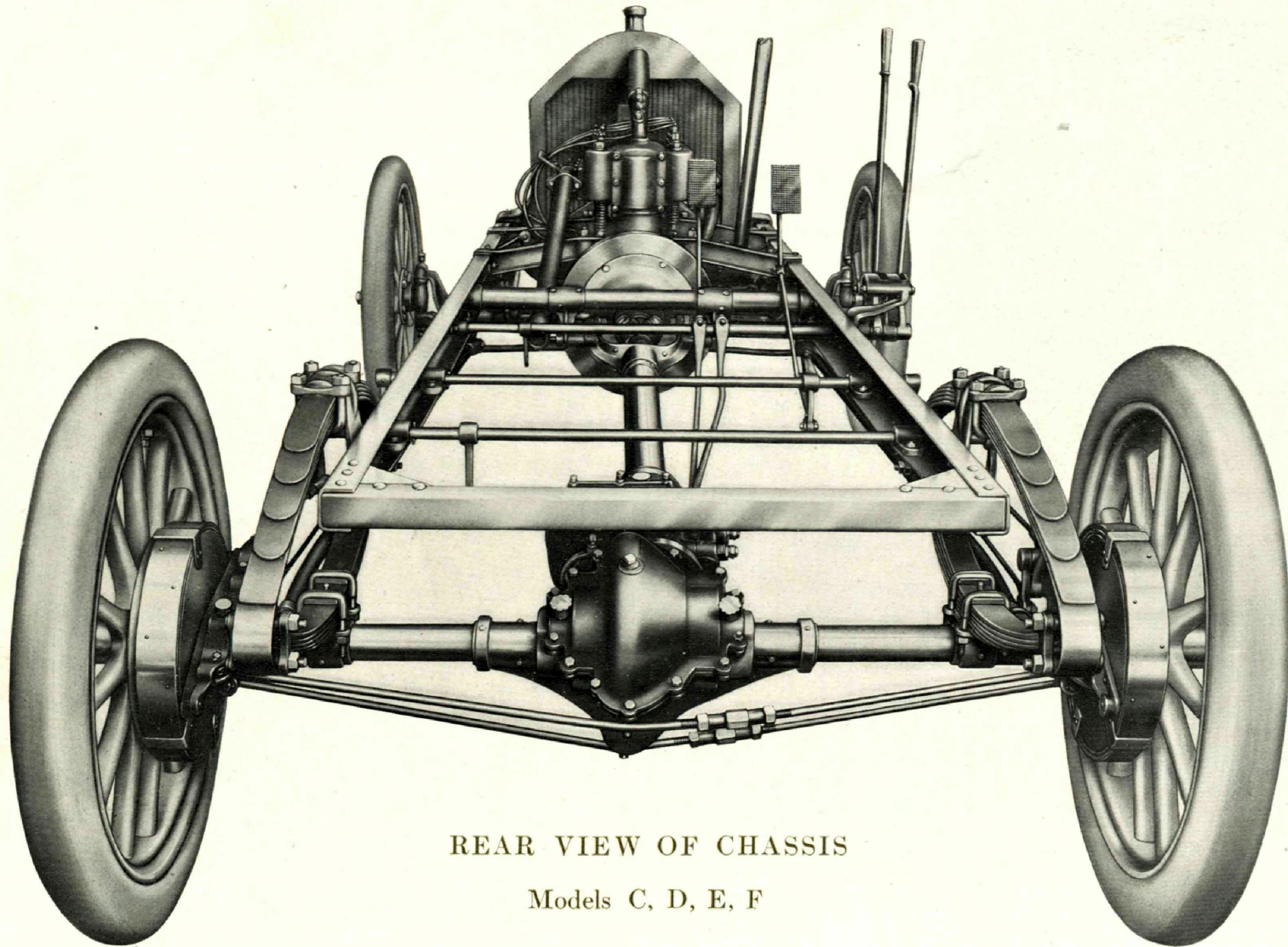
The Schebler carburetor, a recognized standard the world over, is furnished on all models in the BLACK-CROW LINE. Models C, D, E and F are equipped with the Model E Schebler, and Models L and M are equipped with the Model F Schebler. The carburetor is thoroughly protected from dirt, and is placed in such a position to make it convenient to get at for adjustment.



Right Side View of Motor in Models L and M



Sectional View of Chassis Models C, D, E and F, Showing Steering Column, Steering Wheel, Control Pedals and Levers



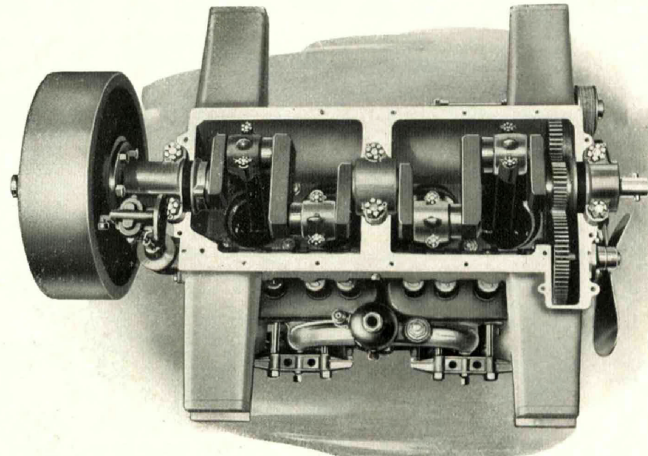
REAR VIEW OF CHASSIS

Models C, D, E, F

Black-Crow Cars and Their Construction—Continued

Black-Crow Ignition

It is probably true that automobile users have been put to more annoyance and expense by ignition troubles than from all other causes combined. The ignition system used in all models of the BLACK-CROW LINE is so simple that anyone can easily understand it, and there is absolutely nothing to get out of order. The current is obtained from a Type S Remy magneto, which is mounted on a base attached to the motor bed on the left side and is direct gear-driven by enclosed gears. Five cells of dry battery, used primarily for starting the motor from the seat, are always in reserve. A transformer coil located on the dash is used in connection with both the magneto and battery current. The hand switch located on the coil box operates both magneto and battery. A push button is placed on the front of the coil box for starting the engine on the spark. There is but one set of secondary or high tension wires, the same spark plugs being used for both magneto and battery systems. The plugs are connected with the secondary wires by patent quick detachable terminals.

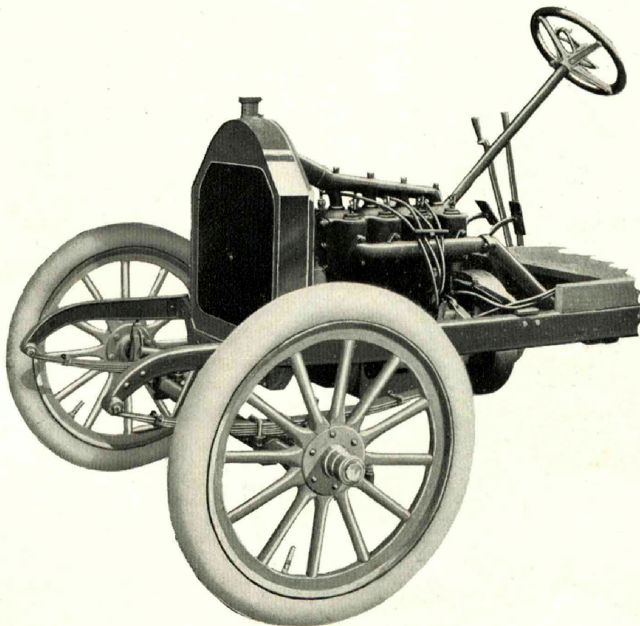


Underview of Motor, Models L and M, Showing Three-Bearing Crank Shaft

Black-Crow Radiator

One of the greatest problems that automobile designers have had to contend with is the shaping of the radiator. The appearance of the hood, in fact the whole appearance of the car, is affected by this one feature. It can be said of only a few cars that they really look well in front. Everyone seems to like the front view of the different models in the BLACK-CROW LINE, and

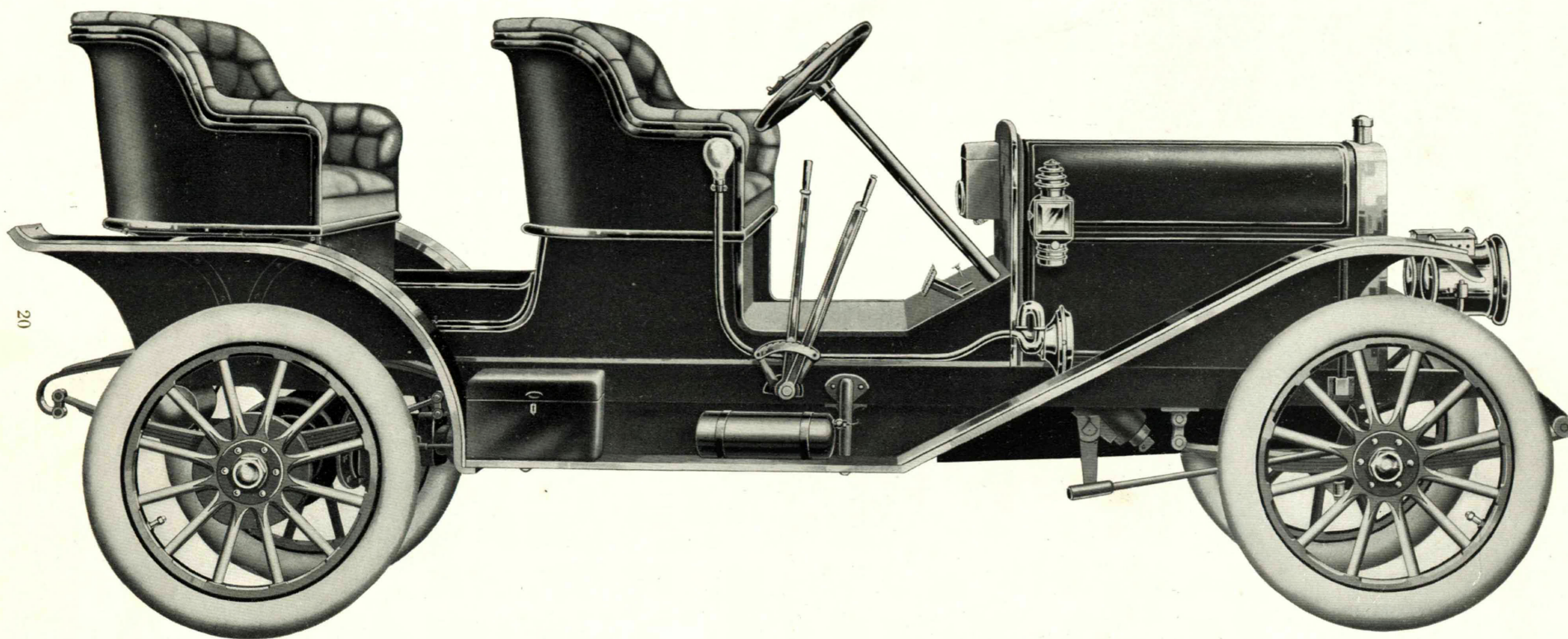
it is all because the radiator is of the proper size, and has the proper lines. The object of the radiator is to cool the water, and the larger the radiator is the better it accomplishes the purpose. The radiator used on all BLACK-CROW CARS is of liberal size and of the honeycomb type. It is securely attached to the front cross-member of the frame.



Sectional View of Chassis, Models C, D, E and F, Showing Large Honeycomb Type Radiator

Black-Crow Bonnet

Is nicely proportioned, with symmetrical lines, liberal size and classy appearance; fitted with three sets of hinges and four brass handles, and held down securely by four spring catches. The corners are made with over-laps. The fit of the bonnet is perfect.



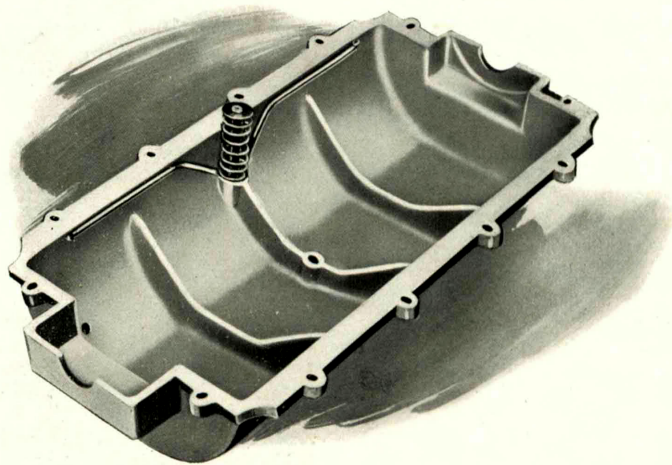
BLACK-CROW SURREY

Model E Price \$1100.00

Black-Crow Cars and Their Construction—Continued

Black-Crow Lubrication

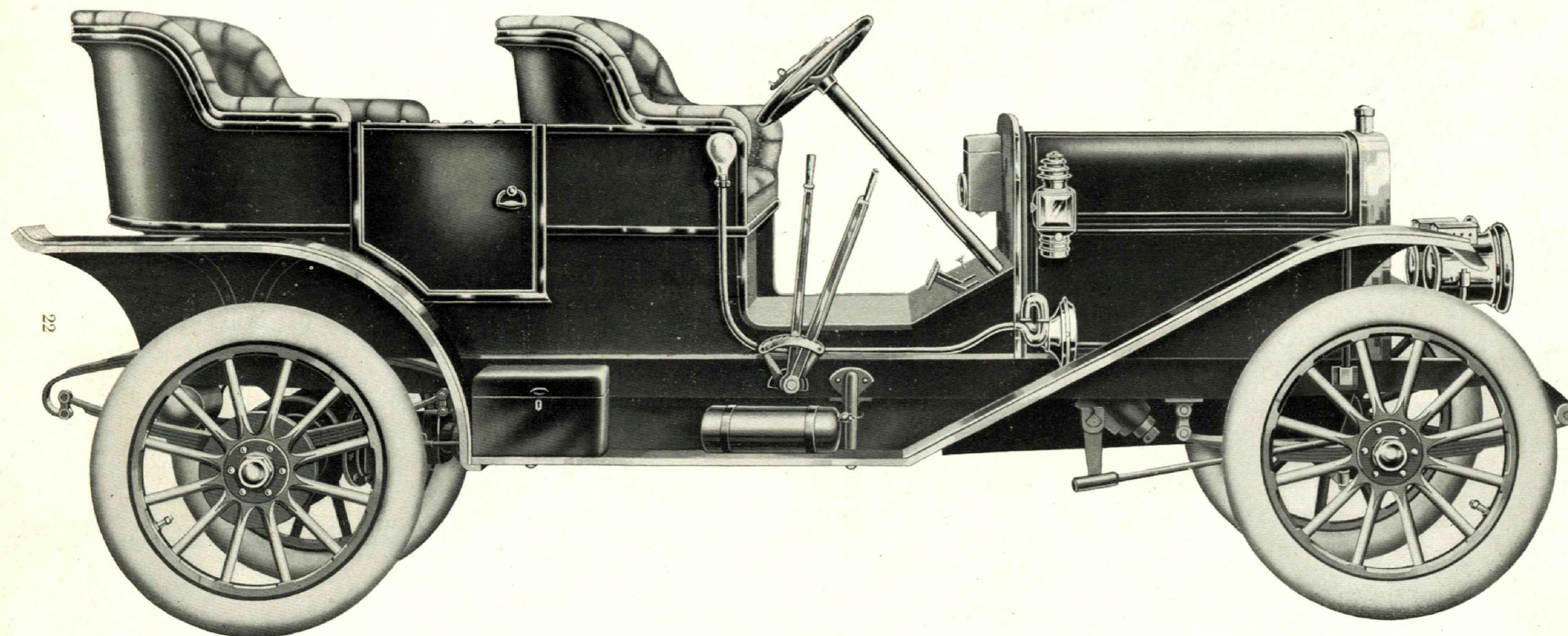
In all models of the BLACK-CROW LINE the very latest improved constant level, self-contained splash system of lubrication is used. Three transverse partitions in the bottom of the crank case prevent the oil from flowing from one end of the crank case to the other in ascending or descending grades, and form a reservoir under each cylinder into which the connecting rods dip. Underneath the crank case and cast integrally therewith is an oil well of three



Sectional View of Crank Case, Showing Oil Pump and Transverse Partitions Used in Connection with the Lubrication of BLACK-CROW MOTORS

quarts capacity. A plunger pump located inside the crank case, midway between the front and rear, on the right side and operated by a cam on the cam shaft, forces oil from the oil well through a copper tube on to all bearings and into all parts of the motor. The copper tube is horizontally placed and extends the full length of the crank case. There is a small opening in this tube directly under each cylinder through which a stream of oil gushes at each plunge of the pump. Thus all parts and bearings receive oil at the same time and the distribution is even. A small stand-pipe right in the center of the crank case, the top of which is on a level with the top of the transverse partitions, permits the oil to flow back into the oil well below when it has gained the proper height in the crank case. The cam shaft and magneto drive gears run in an oil bath. Two try cocks, one located on each side of the crank case, indicate the amount of oil contained in the motor. These try cocks are very accessible. Oil is supplied to the motor through breather tubes, one located on each side of the crank case. This system of lubrication is positive, simple, clean and economical. One filling of the motor is sufficient for a run of 350 to 400 miles.

Black-Crow Control There is nothing more gratifying or enjoyable than to sit behind the wheel of a car that is responsive to one's every wish and submissive to one's will, or, in other words, a car that will start quick, stop quick and pick up quick. To do this a car must contain a motor with surplus power, a reliable clutch and a dependable brake system. In all models of the BLACK-CROW LINE the motor is so sensitive and pert that the slightest change in the position of the spark or throttle control levers, which are placed on top of the steering wheel convenient to the hand, will cause a noticeable change in the speed of the car; the clutch permits of a gradual engagement and instant release, and the brakes are powerful enough to slip the wheels at any time if applied hard. The gear shift lever works in an H sector located on the right side of the frame. When the lever is pushed out and back, in the sector, it gives the low or first speed; when the lever is pushed out and forward it gives the reverse; when the lever is pulled in and forward it gives the intermediate or second speed, and when the lever is pulled in and back it gives the high or direct speed. The emergency brake lever is located on the right side near the gear shift lever. The left foot pedal releases the clutch; the right foot pedal applies the service brakes.



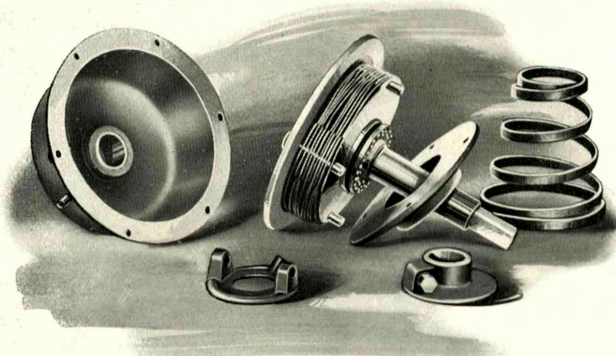
BLACK-CROW PONY TONNEAU

Model F Price \$1200.00

Black-Crow Cars and Their Construction—Continued

Black-Crow Clutch

The connecting link between the motor and driving wheels must possess a multiplicity of good qualities to be thoroughly efficient. The multiple disc clutch of special design is used in all models of the BLACK-CROW LINE. This clutch permits of gradual engagement and instant release; it holds perfectly under the hardest pulls, and severe tests have proven it to be all that could be desired in an automobile clutch. Ten steel discs of 9-inch face are attached to the crank

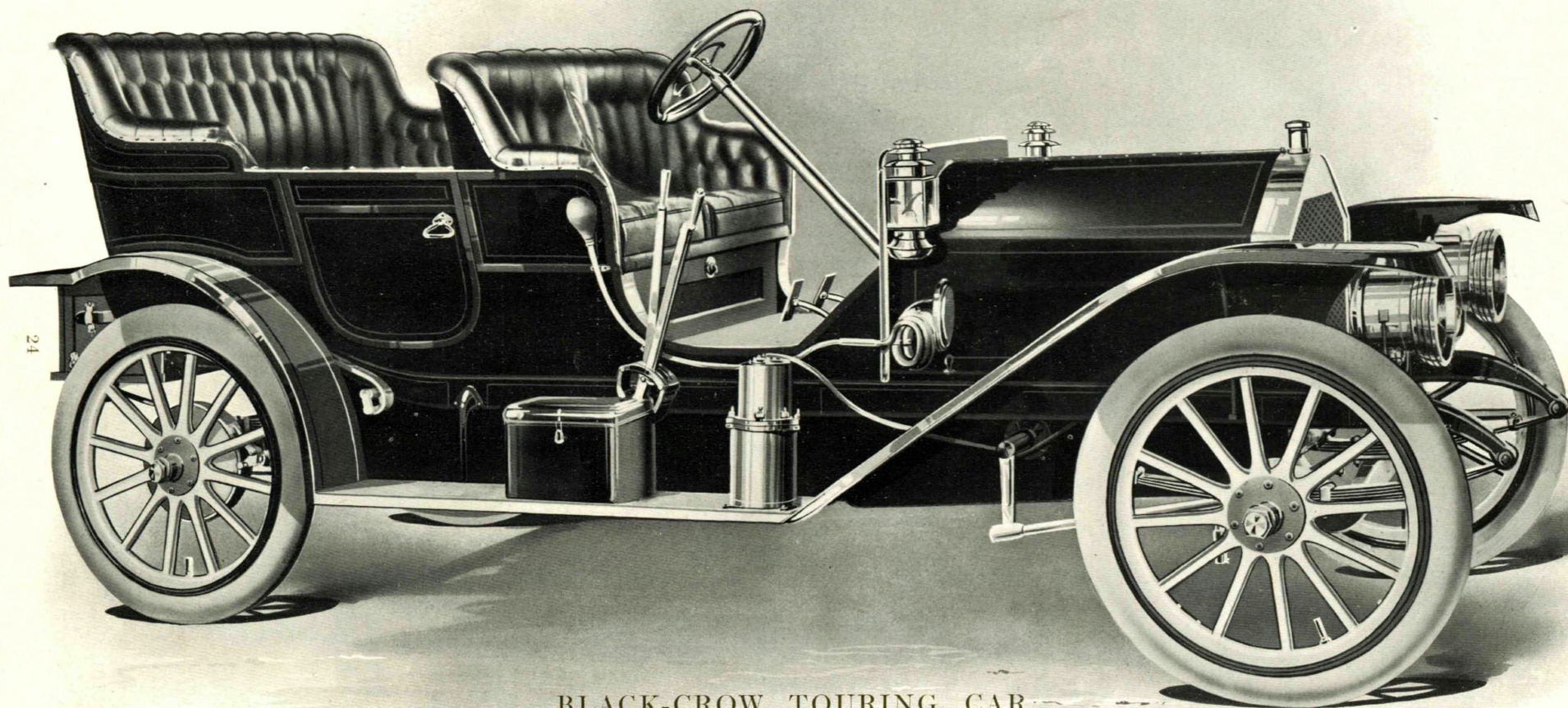


The BLACK-CROW Clutch Dissembled, Showing the Large Coil Spring, Discs, Housing, Etc.

shaft, and alternating with them are nine steel discs of 7-inch face attached to the driving shaft. When the clutch is engaged a large coil spring made of $\frac{1}{2}$ -inch band steel presses the discs together, making a metal-to-metal contact. This spring when open measures 14 inches from top to bottom; is 9 inches in diameter at the bottom and $2\frac{1}{2}$ inches in diameter at the top. While this spring is powerful enough to cause an absolutely non-slipping contact among the discs, yet it is so constructed that it does not require any great exertion on the part of the driver to throw the clutch out. The discs being of wide face there is an abundance of friction surface. Each disc is equipped with a small spring, so that as soon as the pressure from the main spring is removed they immediately disengage themselves. The clutch runs in an oil bath and is housed with the fly wheel.

Black-Crow Brake System In accordance with up-to-date principles the brakes on all models of the BLACK-CROW LINE act on extra large drums of wide face attached to the rear wheels. The service brake is an external contracting band, and the emergency brake is an internal expanding band. The lining of the brake bands is of a special non-combustible and long-lasting material. This system of brakes obviates the use of braking power through the transmission gear, and assures quick and positive application of both foot and hand brakes.

Black-Crow Driving Mechanism There is only one single universal joint in connection with the driving mechanism of all models in the BLACK-CROW LINE. This does away with all back lash in the gears of the transmission and causes the gears to run absolutely noiseless in both the first, intermediate and reverse speeds. It also eliminates the noise of gear change and prevents the gears in the transmission from stripping. The driving shaft is of $1\frac{3}{8}$ -inch nickel steel and turns on Hyatt high duty roller bearings of liberal size, inside of a large torsion tube. The tube is supported at the forward end by a heavy drop forged yoke, which connects with a cross-member of the main frame just back of the fly wheel by a hinge bearing. The hinge bearing permits the oscillation of the rear axle to be taken up without any strain whatever. The torsion tube and driving shaft are not depended upon altogether for transmitting the drive from the rear axle to the frame of the car, but there are two large radius rods of $1\frac{1}{8}$ -inch diameter which are attached to the frame at the same point as the torsion tube and extend clear back to the rear axle. The importance of these radius rods will be appreciated without any further comment.



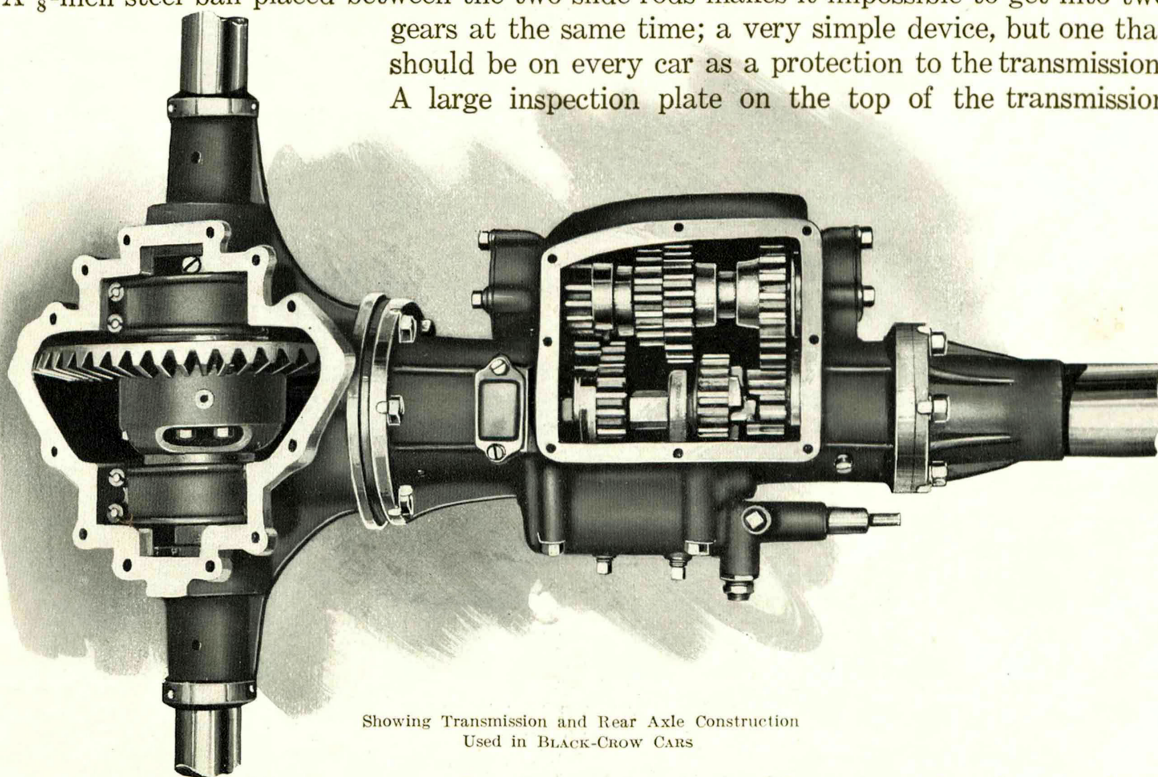
BLACK-CROW TOURING CAR

(FIVE PASSENGER)

Model L Price \$1500.00

Black-Crow Cars and Their Construction—Continued

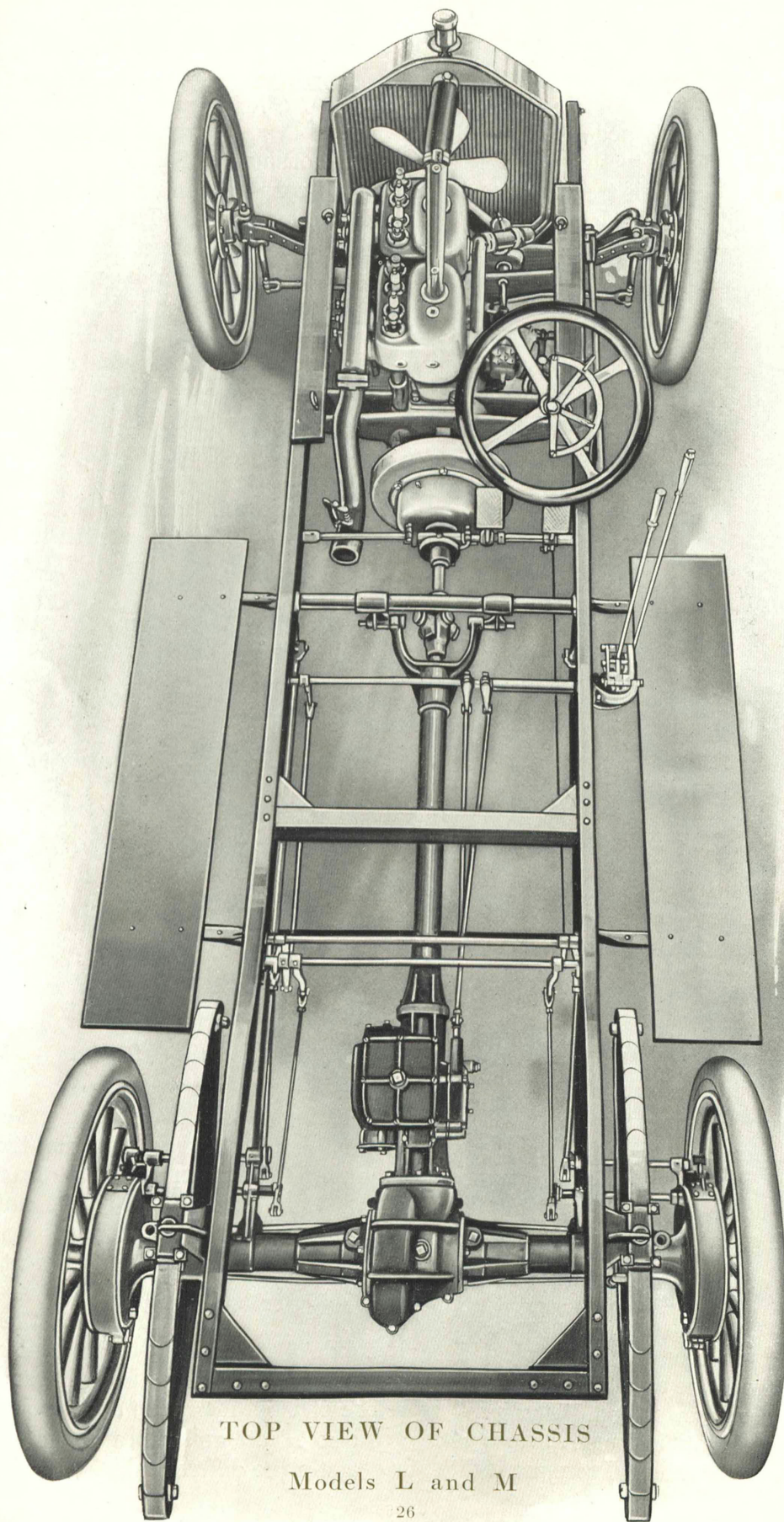
Black-Crow Transmission In all models of the BLACK-CROW LINE the transmission is connected direct to the rear axle differential housing by flanges giving unit type rear axle transmission. This type of construction makes possible the use of the one single universal joint with its attendant advantages. The transmission is of the selective type with three speeds forward and reverse, the direct drive being on the third speed. All gears and shafts in the transmission are of chrome nickel steel, case hardened. The gears are set on squared shafts, and there is not a gear in the entire transmission which has less than a $\frac{7}{8}$ -inch face. Both shafts turn on Hyatt high duty roller bearings. That the shifting of the sliding gears for different speeds may be easily accomplished, the actuating slide rods are notched to correspond with spring-retained spacing dogs, which determine the respectively correct position of gear engagement. A $\frac{5}{8}$ -inch steel ball placed between the two slide rods makes it impossible to get into two gears at the same time; a very simple device, but one that should be on every car as a protection to the transmission. A large inspection plate on the top of the transmission



Showing Transmission and Rear Axle Construction
Used in BLACK-CROW CARS

case makes it possible to remove all gears and bearings without removing the case from the car. The forward end of the transmission case is supported by a torsion tube which is attached by a newly designed trunnion to the center cross-member of the frame. The propeller shaft, which is placed inside the torsion tube, is connected to the clutch by a special self-oiling universal joint.

Black-Crow Rear Axle Construction The weight of the car is carried on heavy steel axle tubes fitted with a cast differential case centrally located between the rear wheels. The power is transmitted through bevel gears, a differential, then to the rear wheels by nickel steel live axle shafts. The live axles do not come in contact with the axle tubes, so that any strain that the axle may sustain cannot cause shafts or bearings to bind. The bevel gears are of large diameter, adjustable, and run in grease on Hyatt roller bearings. There are also Hyatt roller bearings at the outer ends of the axle tube. There are eight spur gears in the differential.



TOP VIEW OF CHASSIS

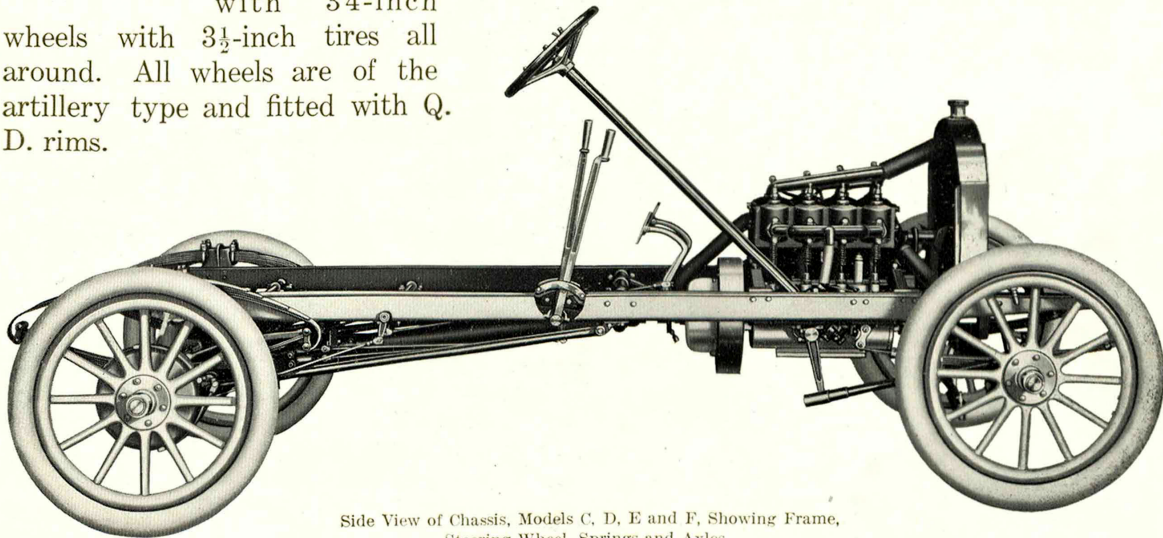
Models L and M

Black-Crow Cars and Their Construction—Continued

Black-Crow Long Wheel Base The reason every car in the BLACK-CROW LINE is so comfortable, roomy, accessible and smooth riding, and the reason these cars look so massive and present such a good appearance, is because of the fact that they have such a long wheel base. The wheel base of the Models C, D, E and F is 107 inches and the wheel base of the Models L and M is 120 inches.

Black-Crow Steering Mechanism Each and every car in the BLACK-CROW LINE is equipped with a large steering wheel, brass steering column and worm and sector gear. The worm and sector are forged integral with their respective shafts. Special thrust bearings are placed above and below the sector and are self-adjusting. The entire gear is of the finest design, having an adjustment in every direction from lost motion. The steel rod connecting the steering knuckles is placed to the rear of the axle, and the forward connection for the drag link is above the axle.

Black-Crow Wheels Models C, D, E and F are furnished with 32-inch wheels; 3-inch tires in front and 3½-inch tires in the rear. Models L and M are furnished with 34-inch wheels with 3½-inch tires all around. All wheels are of the artillery type and fitted with Q. D. rims.

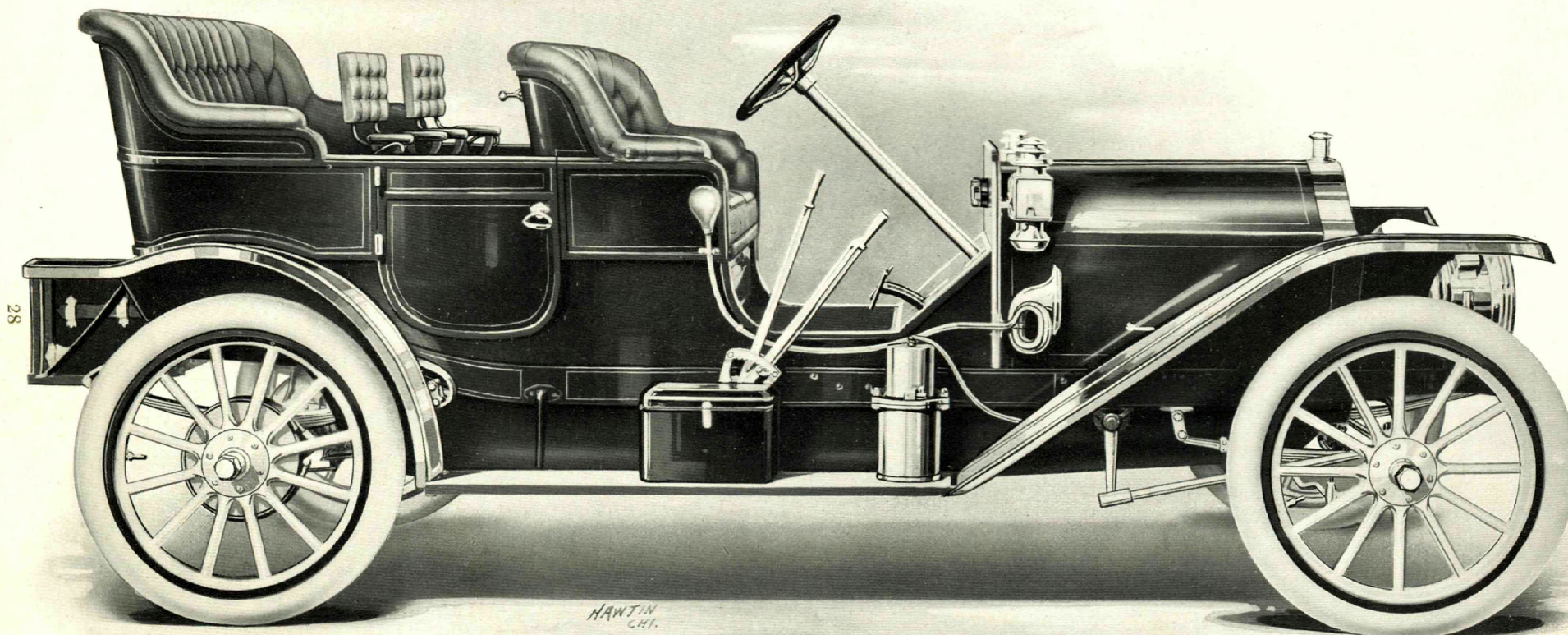


Side View of Chassis, Models C, D, E and F, Showing Frame, Steering Wheel, Springs and Axles

Black-Crow Frames Channel section pressed steel frames are used on all models in the BLACK-CROW LINE. The spring hangers are drop forged steel. The frames are hot riveted throughout and all cross-members have integral gusset plates pressed from 167 gauge stock. The side members are pressed from 167 gauge stock.

Black-Crow Springs It is an undisputed fact that full elliptic scroll pattern springs produce better results than any of the other types. On all models in the BLACK-CROW LINE full elliptic springs are furnished in the rear. These springs are 40 inches long. Models C, D, E and F have 37-inch semi-elliptic springs in front. Models L and M are equipped with 38-inch semi-elliptic front springs.

Black-Crow Front Axles The front axle on Models C, D, E and F is cold drawn seamless tubing of large diameter and heavy gauge with drop forged steel yokes electrically welded. The front wheels revolve on two-point ball bearings, ¾-inch balls inside and 9/16-inch balls outside. Cups and cones are carefully hardened and accurately ground. The axle yokes are fitted with large bronze bushings and an improved oiling arrangement. The front axle on Models L and M is pressed steel, the latest and most improved in motor car construction.



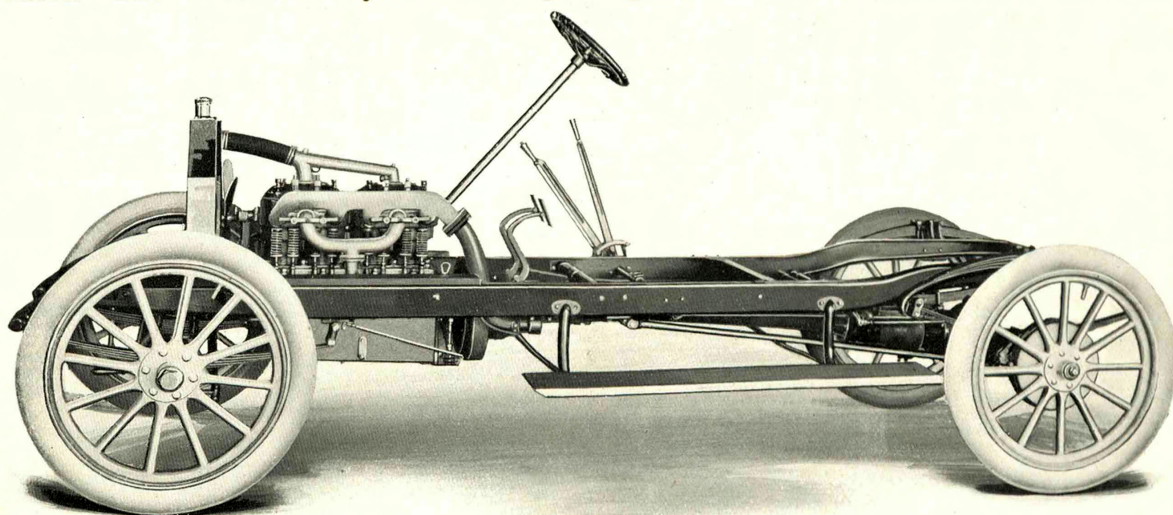
BLACK-CROW TOURING CAR
(SEVEN PASSENGER)

Model M Price \$1750.00

Black-Crow Cars and Their Construction—Continued

Black-Crow Bodies Owing to the long wheel base it has been possible to allow for ample leg room in designing the body for each model in the BLACK-CROW LINE.

The Model C body is of the roadster type with divided front seat and neatly arranged rumble in the rear. The Model D body is of the roadster type with divided front seat and rumble in rear arranged for two passengers. The Model E body is of the surrey type with divided front seat, and large roomy seat in the rear. The rear seats on all three of the models above mentioned are removable so that the bodies can be converted in different ways. The Model F body is a pony tonneau, and the rear seat is large enough to accommodate three passengers in emergency cases. The Model L body is a five-passenger tourist type. The tonneau is exceptionally roomy, and the rear seat has a high back and straight lines producing a mammoth and elaborate effect. The Model M body is a seven-passenger tourist, but is designed on the same



Side View of Chassis, Models L and M

general plan as the Model L body. There is just enough slant to the seats to make them look tony, and they are upholstered in No. 1 buffed leather.

Black-Crow Dash Design The dash on all models in the BLACK-CROW LINE is finished in rich mahogany, with coil box to match, bound with heavy brass molding. Finishing washers are used in connection with all screws and bolts going through the dash.

Black-Crow Painting The improved system of painting used on all models in the BLACK-CROW LINE produces a smooth and brilliant luster. The color scheme is rich dark blue and light cream yellow. The bodies are colored blue with fine line white striping, and the wheels and other gear parts are colored cream yellow with neat black striping. The fender irons, pedals and top irons are enameled black. Brass binding is used around the dash, along the running boards and in other places to produce an elaborately finished effect. The floor boards and running boards are covered with a special grade of linoleum put down with brass tacks.

Black-Crow Equipment The regular equipment on all cars in the BLACK-CROW LINE includes two oil side lamps; one rear lamp; dragon horn; complete set of tires and tire kit, jack, pump and tools. The regular equipment also includes the latest 1910 Type "S" Remy magneto. Any additional equipment desired may be had at additional cost. For prices on such equipment refer to page 32.

CONDENSED SPECIFICATIONS

Models C, D, E and F

Motor—Assembled en bloc.

Horsepower—25-30.

Cylinders—Four, cast separately with water jacket and valve chambers integral, "T head" type.

Bore— $3\frac{7}{8}$ inches.

Stroke— $4\frac{1}{2}$ inches.

Valve Arrangement—On opposite sides.

Valves—Mechanically operated, interchangeable and of extra large face.

Valve Stems—Adjustable.

Cam Shafts—Enclosed within the motor crank case.

Crank Case—Of special aluminum alloy, cast in three horizontal sections.

Crank Shaft—Drop forging, of liberal size, with five large bearings.

Lubrication—Self-contained, constant level splash system in connection with circulation pump. Cam shaft and magneto drive gears packed in hard grease. Other parts supplied with compression grease cups.

Transmission—Selective type, sliding gear, runs in oil bath.

Speeds—Three forward and reverse.

Transmission Shafts—Turn on Hyatt high duty roller bearings.

Transmission Gears—Cut from chrome nickel steel, case hardened. All gears have extra wide face.

Cooling—Water, thermo-syphon system in connection with powerful ball-bearing fan.

Radiator—Honeycomb type with large area.

Bonnet—Fitted with three sets of hinges, brass handles and spring catches.

Carburetor—Schebler Model E.

Steering—Worm and sector type, with adjustment in every direction from lost motion.

Control—Standard type; two side levers and two foot pedals.

Wheel Base—107 inches.

Wheels—Artillery type, 32 inches.

Ignition—Jump spark.

Current Supply—Type "S" Remy magneto, with dry cells for starting.

Frame—Channel section, pressed steel.

Clutch—Multiple disc, metal-to-metal type, running in oil bath.

Front Axle—Cold drawn seamless steel tubing of large diameter.

Rear Axle—Floating type.

Bearings—Hyatt roller bearings are used throughout, with the exception of the front wheels, which turn on two-point ball bearings.

Brakes—Double system, acting on large rear hub drums.

Drive—Shaft with bevel gear and single universal joint

Springs—37-inch semi-elliptic, front; 40-inch full elliptic scroll pattern, rear.

Dash—Mahogany finish, with coil box to match, and heavy brass molding.

Body—Roadster, with either single or double rumble, surrey or pony tonneau, according to model designated.

Upholstering—Genuine leather.

Color—Dark blue body, with fine line white striping; chassis, cream yellow; fenders and other iron parts, black.

Equipment—Three lamps, horn, tire repair kit, jack, pump, tools and Remy magneto

Weight—1840 pounds.

Tread—56 inches.

CONDENSED SPECIFICATIONS

Models L and M

Motor—Vertical type.

Horsepower—35-40.

Cylinders—Four, cast in pairs, with water jacket and valve chambers integral.

Bore—4 $\frac{1}{4}$ inches.

Stroke—4 $\frac{3}{4}$ inches.

Valve Arrangement—All on same side.

Valves—Mechanically operated, interchangeable, and of extra large face.

Valve Stems—Adjustable.

Cam Shafts—Enclosed within the motor crank case.

Crank Case—Of special aluminum alloy.

Crank Shaft—Drop forging of liberal size, with three large bearings.

Lubrication—Self-contained, constant level splash system in connection with circulation pump. Cam shaft and magneto drive gears packed in hard grease. Other parts supplied with compression grease cups.

Transmission—Selective type, sliding gear, runs in oil bath.

Speeds—Three forward and reverse

Transmission Shafts—Turn on Hyatt high duty roller bearings.

Transmission Gears—Cut from chrome nickel steel, case hardened. All gears have extra wide face.

Cooling—Water, thermo-syphon system in connection with powerful ball-bearing fan.

Radiator—Honeycomb type with large area.

Bonnet—Fitted with three sets of hinges, brass handles and spring catches.

Carburetor—Schebler Model F.

Steering—Worm and sector type, with adjustment in every direction from lost motion.

Control—Standard type, two side levers and two foot-pedals.

Wheel Base—120 inches.

Wheels—Artillery type, 34 inches.

Ignition—Jump spark.

Current Supply—Type "S" Remy magneto, with dry cells for starting.

Frame—Channel section, pressed steel

Clutch—Multiple disc, metal-to-metal type, running in oil bath.

Front Axle—Pressed steel, the latest and most improved in motor car construction.

Rear Axle—Floating type.

Bearings—Hyatt roller bearings are used throughout, with the exception of the front wheels, which turn on two-point ball bearings.

Brakes—Double system, acting on large rear hub drums.

Drive—Shaft with bevel gear and single universal joint.

Springs—37-inch semi-elliptic, front; 40-inch full elliptic scroll pattern, rear.

Dash—Mahogany finish, with coil box to match and heavy brass molding.

Body—Touring tonneau for either five or seven passengers, according to the model designated.

Upholstering—Genuine leather.

Equipment—Three lamps, horn, tire repair kit, jack, pump, tools and Remy magneto.

Weight—2375 pounds.

Tread—56 inches.

Price List of Extra Equipment

Two gas lamps with generator, brackets and piping, complete.	\$25.00	Black enamel duck tire covers, each.	\$ 3.00
Brackets and piping for gas lamps (when lamps not ordered).	5.00	No. 30 Stewart Speedometer.	15.00
Generator only, for gas lamps.	7.00	No. 26 Stewart Speedometer.	20.00
Two gas lamps without generator, brackets or piping.	13.00	No. 11 Stewart Speedometer.	25.00
Automatic all brass frame wind shield. .	35.00	No. 27 Stewart Speedometer.	40.00
Dragon horn.	5.00	Muffler cut-out.	2.50
Two brass oil side lamps.	8.00	Tire chains, each.	7.00
One brass tail lamp.	4.00	Muslin covers for cars, each.	2.50
Brass bumper.	15.00	Top with side curtains, complete, for Models C and D.	40.00
Brass foot rail.	3.50	Cape extension top with side curtains, complete, for Models E and F.	75.00
Brass robe rail.	3.50	Cape extension top with side curtains, complete, for Model L.	100.00
Brass tire holder (one or two tires), per set.	6.50	Cape extension top with side curtains, complete, for Model M.	125.00
Japanned tire holder (one or two tires), per set.	5.00		

Warranty

BLACK-CROW MOTOR CARS herein catalogued are warranted against defects in workmanship and material for six months from date of invoice covering original shipment as follows.

Upon the return to our factory at Elkhart, Indiana, of any defective part within said six months, transportation charges prepaid, the same will be repaired or a corresponding new part will be supplied free of charge, F. O. B. factory, if, upon inspection, the failure of said part we shall have determined to have been due to defect in either material or workmanship and not due to misuse, neglect or accident and not to have been the result of alterations or repairs made outside of our factory; but we assume no responsibility for any labor or damage of any kind except as above provided.

We make no warranty whatever with respect to tires, rims, lamps or batteries.

The purchaser understands and agrees that no warranty of any kind is made in regard to the motor cars herein described except as hereinbefore set forth, and it is expected that all customers will make a thorough examination of our goods before purchasing.

Terms of Shipment

A deposit of 20% of the total amount shall accompany each order, balance net cash on delivery to purchaser, or draft against bill of lading. Our responsibility ceases when goods are delivered in good order to the transportation company. All quotations are F. O. B. factory, and all shipments are made direct from Elkhart, Indiana, where our factory is located.

All remittances should be made payable to Black Manufacturing Company, and can be sent by Post Office Money Order, Express Money Order, Bank Draft or by Registered Letter. Personal checks will be accepted subject to collection charges, but to avoid unnecessary expense and possible delays we advise the use of one of the other methods in preference to forwarding personal checks.

Address all correspondence and send all orders and remittances direct to

BLACK MANUFACTURING COMPANY

215-217-219 W. Ohio Street, Chicago, Ill.

